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PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional) YOR920010252US2	
<p>I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)]</p> <p>on <u>December 15, 2005</u></p> <p>Signature <u><i>Susan Fortuna</i></u></p> <p>Typed or printed name <u>Susan Fortuna</u></p>		Application Number 10/079,741	Filed 02/19/2002
		First Named Inventor Kwok et al.	
		Art Unit 2167	Examiner Sathyanaraya R. Pannala
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p>			
<p>I am the</p> <p><input type="checkbox"/> applicant/inventor.</p> <p><input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)</p> <p><input checked="" type="checkbox"/> attorney or agent of record. 36,597 Registration number _____</p> <p><input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____</p>		<p><u><i>Kevin M. Mason</i></u> Signature</p> <p><u>Kevin M. Mason</u> Typed or printed name</p> <p><u>(203) 255-6560</u> Telephone number</p> <p><u>December 15, 2005</u> Date</p>	
<p>NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.</p>			
<p><input checked="" type="checkbox"/> *Total of <u>1</u> forms are submitted.</p>			

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Application

Applicant(s): Kwok et al.
Docket No.: YOR920010252US2
Serial No.: 10/079,741
Filing Date: February 19, 2002
Group: 2167
Examiner: Sathyanaraya R. Pannala

I hereby certify that this paper is being deposited on this date with the U.S. Postal Service as first class mail addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

Signature:  Date: December 15, 2005

Title: Retrieving Handwritten Documents Using Multiple Document
Recognizers and Techniques Allowing Both Typed and Handwritten
Queries

MEMORANDUM IN SUPPORT OF
PRE-APPEAL BRIEF REQUEST FOR REVIEW

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The present invention and prior art have been summarized in Applicants' prior responses.

STATEMENT OF GROUNDS OF REJECTION

Claims 26-33, 35, and 36 are rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement. Claims 1-7, 12, 16, 19-22, 34, and 36 are rejected under 35 U.S.C. §103(a) as being unpatentable over Tran, and further in view of Piersol, claims 8, 11, 13-15, 17-18, 23, and 25 are rejected under 35 U.S.C. §103(a) as being unpatentable over Tran, in view of Piersol and in view of Keith, and claims 26-33, 35, and 37 are rejected under 35 U.S.C. §103(a) as being unpatentable over Tran, and in view of Platt et al.

ARGUMENTSection 112 Rejections

Claims 26-33, 35, and 36 are rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement. In particular, the Examiner asserts that the specification on page 29, lines 2-27, does not support the first word stack, second word stack, and third word stack as well as first handwriting recognizer and second handwriting recognizer. In the Response to Arguments section of the final Office Action, the Examiner asserts that the specification amendment is rejected because the specification amendment is done to incorporate the rejected claim in order to overcome the rejection (see, MPEP 601.01).

Appellants note that the specification has been amended to recite that
 a first word stack can be created from at least one word by using a first handwriting recognizer, and a second word stack can be created from at least one word by using a second handwriting recognizer. A determination of whether a document should be retrieved can then be made by comparing the first and second word stacks with a third word stack.

Support for this amendment can be found in originally filed claim 26. No new matter is introduced.

Regarding the rejection of the specification amendment because the specification amendment is done to incorporate the rejected claim in order to overcome the rejection, Appellants note that the claims are considered a part of the invention disclosure and therefore do not constitute new matter.

Independent Claims 1, 13, 16, 26, 34-37

Independent claims 1, 16, 34, and 36 were rejected under 35 U.S.C. §103(a) as being unpatentable over Tran, and further in view of Piersol, independent claim 13 was rejected under 35 U.S.C. §103(a) as being unpatentable over Tran, in view of Piersol and in view of Keith, and claims 26, 35, and 37 were rejected under 35 U.S.C. §103(a) as being unpatentable over Tran, and in view of Platt et al.

Regarding claims 1, 34, and 36, the Examiner asserts that Tran teaches “creating a document stack from at least one word in a handwritten document” (FIG. 22, col. 31, line 66, to col. 32, line 16), and “creating a query stack from a query” (FIG. 1;

col. 10, line 16). The Examiner acknowledges that Tran does not explicitly teach determining the measure between document and query stacks, but asserts that Piersol teaches this limitation (FIGS. 8 and 9A; col. 13, lines 20-31 and 54-59). Regarding claims 26, 35, and 37, the Examiner asserts that Tran teaches creating a first word
 5 recognition stack by using a first handwriting recognizer from at least one word, creating a second word recognition stack by using a second handwriting recognizer from at least one word, and comparing the first and second word recognition stacks with a third word recognition stack to determine whether a handwritten document should be retrieved (FIG. 22, col. 31, line 66, to col. 32, line 16).

10 Appellants note that the present disclosure teaches that,

in step 120, the query is converted to one or more query stacks. A query stack is a recognition stack having a number of words and, for each word, a word score. Basically, a recognition stack represents the text words, which a handwriting recognition engine determines from an
 15 ink word, that are the most likely set of possible text words corresponding to the ink word. In general, a recognition stack contains all possible words known to a handwritten recognition system. In practice, the recognition stacks are subjected to a word score threshold or a rank threshold, which essentially truncates the recognition stacks.
 20 (Page 7, lines 6-13.)

Appellants also note that the present disclosure teaches that

the term “document stack” will be used for a recognition stack determined from a document. Again, a document stack is an N-best list as described above. It should be noted that, in general, there will be multiple
 25 recognition stacks per query or per document.
 (Page 7, line 27, to page 8, line 3.)

Thus, query stacks and document stacks are recognition stacks that represent the text words which a handwriting recognition engine determines from an ink word, that are the most likely set of possible text words corresponding to the ink word. In general, a
 30 recognition stack contains all possible words known to a handwritten recognition system. Thus, at least one of the recognized words is represented by more than one word in the stack. Tran does *not* disclose or suggest that a *stack contains more than one word corresponding to one of the recognized words*, and does *not* disclose or suggest that *stacks represent the text words which a handwriting recognition engine determines from*
 35 *an ink word, that are the most likely set of possible text words corresponding to the ink*

word. In addition, Piersol does not disclose or suggest determining a measure between document and query stacks, as defined in the present invention.

Thus, Tran and Piersol, alone or in combination, do not disclose or suggest creating a document stack from at least one word in a handwritten or text document; creating a query stack from a query; and determining a measure between the document stack and the query stack, as required by independent claims 1, 13, 34, and 36, do not disclose or suggest creating at least one query stack from a query comprising one or more words, wherein each word is handwritten or typed; selecting a handwritten document from the set of handwritten documents; selecting a document stack from the selected handwritten document; and determining a measure between the at least one query stack and the selected document stack, as required by independent claim 16, and do not disclose or suggest creating a first word recognition stack, by using a first handwriting recognizer, from at least one word; creating a second word recognition stack, by using a second handwriting recognizer, from the at least one word; and comparing the first and second word recognition stacks with a third word recognition stack to determine whether a handwritten document should be retrieved, as required by independent claims 26, 35, and 37.

Additional Cited References

Keith was also cited by the Examiner for its disclosure that “each of the query and document stacks comprises a plurality of words, wherein the measure uses edit distances to compare words in the query stack to words in the document stack” (col. 20, lines 20-26). Appellants note that Keith is directed to a system for discerning and displaying relational structure and conceptual similarities among items in a target group of data items (see, Abstract). Keith does not disclose or suggest query stacks or document stacks, as defined in the present disclosure, and does not disclose or suggest that a stack contains more than one word corresponding to one of the recognized words. In addition, Keith does not disclose or suggest determining the measure between document and query stacks, as defined in the present invention.

Platt et al. was also cited by the Examiner for its disclosure of a “handwriting recognizing system using the input device as tablet on which characters are formed using a pen-like stylus” (FIG. 1; col. 3, line 66, to col. 4, line 3). Appellants note

that Platt is directed to a system for recognizing handwritten characters, including pre-processing apparatus for generating a set of features for each handwritten character, a neural network disposed for operating on sparse data structures of those features and generating a set of confidence values for each possible character symbol which might correspond to the handwritten character, and post-processing apparatus for adjusting those confidence values and for selecting a character symbol consistent with external knowledge about handwritten characters and the language they are written in. (See, abstract.) Platt does not disclose or suggest query stacks or document stacks, as defined in the present disclosure, and does not disclose or suggest that a stack contains more than one word corresponding to one of the recognized words. In addition, Platt does not disclose or suggest determining the measure between document and query stacks, as defined in the present invention.

Thus, neither Keith nor Platt et al., alone or in combination, disclose or suggest creating a document stack from at least one word in a handwritten or text document; creating a query stack from a query; and determining a measure between the document stack and the query stack, as required by independent claims 1, 13, 34, and 36, do not disclose or suggest creating at least one query stack from a query comprising one or more words, wherein each word is handwritten or typed; selecting a handwritten document from the set of handwritten documents; selecting a document stack from the selected handwritten document; and determining a measure between the at least one query stack and the selected document stack, as required by independent claim 16, and do not disclose or suggest creating a first word recognition stack, by using a first handwriting recognizer, from at least one word; creating a second word recognition stack, by using a second handwriting recognizer, from the at least one word; and comparing the first and second word recognition stacks with a third word recognition stack to determine whether a handwritten document should be retrieved, as required by independent claims 26, 35, and 37.

Claims 6 and 21

Regarding claims 6 and 21, the Examiner notes that Piersol teaches that, if a (saved) query is added to the stack, an HTML page representing *the query is appended to the stack*. Claims 6 and 21 require wherein the query is typewritten, and wherein the

step of creating a query stack comprises *creating a query stack for each query word of the query, wherein each query stack comprises a corresponding word from the query and an associated high word score for this word, and wherein each query stack comprises a plurality of other words having zero word scores associated therewith.*

5 Applicants could find no disclosure or suggestion by Piersol of these limitations.

Claims 7 and 22

Regarding claims 7 and 22, the Examiner notes that Piersol teaches that,

10 referring to FIG. 9A, a listing of documents satisfying a query of "relative sentences" is shown. Within the list view, query results may be sorted by a variety of criteria such as, for example, creation source (the device that created or captured the document), creation time, file size, and search result score, all indicated by reference number 902. (Col. 13, lines 54-59.)

15 Claims 7 and 22 require wherein the query is typewritten, and wherein the step of creating a query stack comprises creating a query stack *for each query word of the query, wherein each query stack comprises a corresponding word from the query and an associated high word score for this word, and wherein each query stack comprises at least one other word having a small word score associated therewith.* Applicants could
20 find no disclosure or suggestion by Piersol of these limitations.

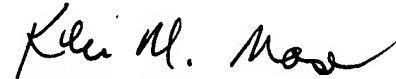
Conclusion

The rejections of the cited claims under section 103 in view of Tran, Piersol, Keith, and Platt et al., alone or in any combination, are therefore believed to be
25 improper and should be withdrawn. The remaining rejected dependent claims are believed allowable for at least the reasons identified above with respect to the independent claims.

If any outstanding issues remain, or if the Examiner has any further suggestions for expediting allowance of this application, the Examiner is invited to
30 contact the undersigned at the telephone number indicated below.

The attention of the Examiner and the Pre-Appeal Review Committee to
this matter is appreciated.

Respectfully,



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